

## Visual Resource

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### Analysis Framework: Regulation, Forest Plan, and Other Direction

Regulations in federal law and guidance from the Tahoe NF Land and Resource Management Plan (LRMP) gives direction to resource managers and lays out a framework for analysis of impacts on Forest resources. The National Forest Management Act (NFMA) and its implementing regulations, requires the inventory and evaluation of the Forest's visual resource, addressing the landscape's visual attractiveness and the public's visual expectations. Management prescriptions for definitive lands areas of the forest are to include visual quality objectives. The National Environmental Policy Act of 1969 (NEPA) states that it is the "continuing responsibility of the Federal Government to use all practicable means to assure for all Americans, aesthetically and culturally pleasing surroundings." NEPA also requires "a systematic and interdisciplinary approach which will insure the integrated use of the natural and social sciences and the environmental design arts into planning and decision-making which may have an impact on man's environment." Numerous federal laws require all Federal land management agencies to consider scenery and aesthetic resources in land management planning, resource planning, project design, implementation, and monitoring.

Several USDA handbooks have been developed to establish a framework for management of scenic and visual resources. This report relies upon the principles outlined in Agricultural Handbook Nos. 434, 462, and 559. These handbooks focus on identifying principles and concepts that begin to quantify and describe the visual elements and qualities that determine the appearance of a landscape or viewshed. They describe concepts in identifying the characteristic landscape, landscape variety, deviations, and variable factors, explain how to apply these concepts to the management of activities such as timber management and forest health projects, and define visual quality objectives.

The Tahoe NF LRMP directs managers to maintain visual quality at the Visual Quality Objective (VQO) level specified in each management area, as a minimum, but maintain higher visual quality wherever practical and compatible with other goals. The LRMP also contains specific management area direction for the visual resource. Each management area is assigned a VQO or a range of VQOs to guide decisions and resource management activities. The VQO's assigned to the management areas within the Sunny South project range from Modification to Retention. VQOs provide direction for the visual resource to determine the level of acceptable change for the landscape. This analysis uses VQOs to determine if the proposed action meets Forest Plan standards and guidelines by comparing the degree of alterations from an otherwise natural-appearing forest landscape. The TNF LRMP and Agriculture Handbook Number 462 provide definitions for the VQOs used for the visual management of lands administered by the Tahoe NF.

### Affected Environment

The Forest landscape in the Sunny South project area is characterized by 50 year old pine plantations planted after the 1960 Volcano fire as well as forested areas that have naturally regenerated without

management activities resulting in an overstocked dense forest condition. The characteristic landscape is characterized as an enclosed and canopied landscape on rolling foothill lands with some short steep slopes. This type of landscape is defined by small openings in the forest canopy or small lakes surrounded by continuous “walls” of trees and a continuously canopied tree cover within the forested areas. The landscape is small in scale, does not allow for distant or dramatic views and is best comprehended in the foreground at low speeds. The forest within the project area is primarily observed in foreground views with some potential for middleground views from small hilltop or ridgetop views or views across bodies of water. Background views are rare or nonexistent. The characteristic landscape also has strong elements of Line and Texture resulting in the strong vertically linear lines of tree trunks below the canopy and the finely textured needles of the coniferous species of trees and leaves of the Madrone and Oak species visible in the foreground.

The visible landscape within the general project area contains a common degree of vegetative and visual diversity, vegetation exists both in plantations of homogenous stands of ponderosa pine and as more natural appearing mixed conifer and hardwood forest common to the western Sierra Nevada. Landforms within this variety class are moderately to steeply sloped and dissected or rolling resulting in a variety class that is common in the Sierra Nevada Mountains classified as Variety Class B. However, increased variety in form, color, and texture around the popular high use recreation areas of Sugar Pine reservoirs would have a distinctive degree of variety classified as Variety Class A. Sugar Pine Reservoir is a lake large enough for recreational boating and fishing, it is a natural appearing reservoir with a consistent water level, has an outstanding shoreline configuration, interesting geologic features, and islands. This recreation area with its outstanding features results in very high use and a busy recreation season putting this area into primary importance and the highest sensitivity level, Level 1.

Visitors traveling to the Sugar Pine Recreation area expect high levels of scenic quality and near natural appearing, continuously forested landscapes greatly add to the recreation experience when viewed from developed recreation sites in the Sugar Pine Reservoir and Big Reservoir areas. The Tahoe NF LRMP has recognized these values by allocating a Retention VQO to the foreground viewing distance zone along the Foresthill Drive Road, Sugar Pine Road 10, roads 41, 40, 24 and the area within foreground views of Sugar Pine and Big Reservoirs. Activities viewed in the middleground distance zone from travel routes and recreation sites shall achieve a Partial Retention VQO.

## **Visual Resource: Environmental Consequences**

### **Direct and indirect effects**

The Sunny South Project proposes to improve forest resiliency and reduce tree mortality caused by the Western Pine Beetle by selectively thinning stands to reduce stand densities. Forest stands would be thinned to basal area densities ranging from 120 to 200 sf per acre which would retain at least 40% to 50% canopy cover. The proposed action also includes under burning to reduce accumulated fuels. To further improve stand resiliency and increase forest diversity, forest openings created by removing pockets of insect infested trees would be planted with a variety of tree species after thinning and under

burning activities are complete. These actions would result in a forested condition that improves the visual character of the project area to a desired future condition described in the Tahoe NF LRMP and Sierra Nevada Forest Plan Amendment.

The proposed action has the potential to affect the visual resource. These effects may be visible in the short term (1-3 years), in the longer term (3-20 years), and effects may also be beneficial to the visual resource rather than negative. The perception of a thinner more open forest would be immediately evident to visitors who may have local knowledge of the area or who may frequent the Sugar Pine and Big Reservoir Recreation Areas or often use the OHV trails in the area but would be minimally evident to unapparent to new forest visitors. The condition of a less dense and cleaner forest would appear more park like and views into the forest would be created highlighting the natural terrain, hardwoods, and old growth conifer trees that would be retained and protected. This condition would be typically more visually pleasing to the average forest visitor which would be a positive impact to the visual resource. A more visually pleasing forest would be more naturally appearing and would reduce the appearance of the proposed actions.

Short term affects would be most visible in the immediate foreground of high use travel routes and recreation sites in the Sugar Pine and Big Reservoir Recreation Areas immediately after thinning and under burning activities are complete. Some Areas between recreation sites and treatment units would remain unchanged as management activities are not planned in these areas. These buffers will block direct views from recreation sites around Sugar Pine Recreation Area as well as both Sugar Pine and Big Reservoirs and would contribute to seamless blending of the treatment units into the surrounding untreated forest. Evidence of cut stumps, slash, skid trails, drag marks, equipment tracks, burn piles, blackened duff, and scorched tree trunks would be visible in the immediate foreground along high use travel routes and potentially within the foreground of recreation sites in the Sugar Pine Recreation Area in the short term and would create a condition where the VQO of Retention applied to these areas would not be achieved. Evidence of these activities in the short term would be diminished by proper implementation of mitigation requirements and each year after project completion, as new forest vegetation growth appears and new forest duff covers up the forest floor, treatment activities would become unnoticeable. Once this occurs then the VQO of Retention would be achieved.

Long term effects to the visual resource as a result of this project would be positive. Proposed treatments would result in a forest condition that is consistent with Tahoe NF LRMP visual resource objectives. Selective thinning of overstocked forest stands would reduce bark beetle mortality and increase forest resiliency. Thinning would also enhance hardwoods and old growth conifer trees producing a more visually pleasing open park like landscape. Areas along high use roadway and recreation site foreground would appear continuously vegetated with 50% canopy closure. Small irregularly shaped openings would be created to introduce tree size and species diversity. Logging slash generated from thinning activities would be hand piled and burned resulting in insignificant visual disturbances. Removal of heavy fuels from under burning activities throughout the project area would encourage healthy, diverse and vigorous new vegetative growth. All VQO's in the project area would be achieved and the existing levels of visual quality would be maintained or enhanced.

VQO's of Partial Retention and Modification would be achieved in both the short and long term time frames. Proposed activities would remain visually subordinate to the characteristic landscape or borrow from naturally established form, line, color, and texture so that the visual characteristics are natural appearing when compared to the surrounding area. Mitigation requirements would further increase the ability of the proposed action to meet or exceed the assigned VQO's. VQO compliance was based on map review and on-the-ground knowledge of topography and vegetation of the area. Effects to key viewsheds and compliance with retention and partial retention VQOs are measurement indicators for this analysis.

## **Cumulative Effects**

Cumulative effects to the visual resource would be avoided by implementing the mitigation measures developed for this proposed action. Future projects similar to this one utilizing similar mitigation requirements would further add to the health and resiliency of the forest in this part of the Tahoe NF and would produce a forested condition that is consistent with desired future visual resource conditions. A healthy resilient forest is a visually pleasing one and would be consistent with all forest VQO's.

## **Summary of Effects Analysis**

The proposed action would have very little to no impact to the visual resource and would meet the visual resource standards and guidelines outlined in the Forest Plan in the long term. The highest degree of impact would be in the short term (< 3 years) when management activities would be most evident along high use travel routes and in the Sugar Pine and Big Reservoir Recreation Areas. Short term VQO's of Retention in these immediate foreground areas may not be consistent. However, with proper implementation of mitigation requirements and as natural forest processes cover up activity evidence beyond the short term time frame, all VQO's would be achieved. Key viewsheds would only be affected in the short term but would be enhanced when evidence of management activities become unapparent. Views from the Sugar Pine Dam would be most affected when evidence of small openings in the forest would be created in unit 11 as a result of the removal insect infested trees. These openings would be the most visually apparent action of this project but this action would be a positive impact compared to the strong contrast and appearance of dead and dying trees. The created openings would be natural appearing in size and shape, would blend with the surrounding environment, and would result in a more visually appealing healthy and resilient forest condition. In the long term these created openings would gradually be filled back in with planted trees and natural regeneration and eventually would appear as continuously forested. VQO's in all other parts of the project area would be achieved in the short and long term time frames.